**Project Initialization and Planning Phase**

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| Date | 15 March 2024 |
| Team ID | 739724 |
| Project Title | Analysis of amazon cell phone reviews |
| Maximum Marks | 3 Marks |

**Project Proposal (Proposed Solution) template**

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

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| **Project Overview** | |
| Objective | Analyze Amazon cell phone reviews to extract insights about customer sentiment, product features, and competitor analysis. |
| Scope | Focus on reviews for top-selling cell phone brands on Amazon. |
| **Problem Statement** | |
| Description | Current methods of analyzing customer reviews are manual and time-consuming. This project aims to automate the process, making it more efficient and scalable. |
| Impact | Improve product development, marketing strategies, and customer service based on insights from reviews. |
| **Proposed Solution** | |
| Approach | Use natural language processing (NLP) techniques to analyze reviews, including sentiment analysis, topic modeling, and keyword extraction. |
| Key Features | Sentiment analysis, topic modeling, keyword extraction, competitor analysis. |

**Resource Requirements**

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| **Resource Type** | **Description** | **Specification/Allocation** |
| **Hardware** | | |
| Computing Resources | CPU/GPU specifications, number of cores | e.g., 2 x NVIDIA V100 GPUs |
| Memory | RAM specifications | e.g., 8 GB |
| Storage | Disk space for data, models, and logs | e.g., 1 TB SSD |
| **Software** | | |
| Frameworks | Python libraries like NLTK, SpaCy, or TextBlob for text processing. | Scikit-learn or TensorFlow/Keras for machine learning models. |
| Libraries | Pandas for data manipulation. | Matplotlib or Seaborn for data visualization. |
| Development Environment | Jupyter Notebook or any Python IDE for coding. | Git for version control. |
| **Data** | | |
| Data | Source, size, format | e.g., Kaggle dataset |